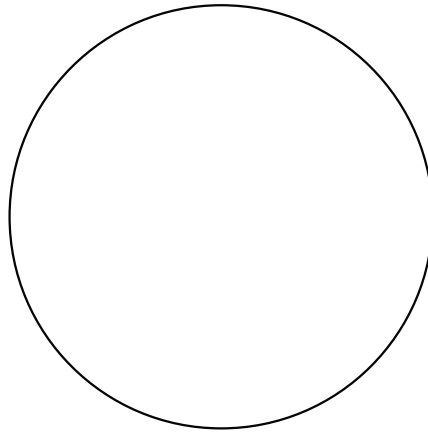
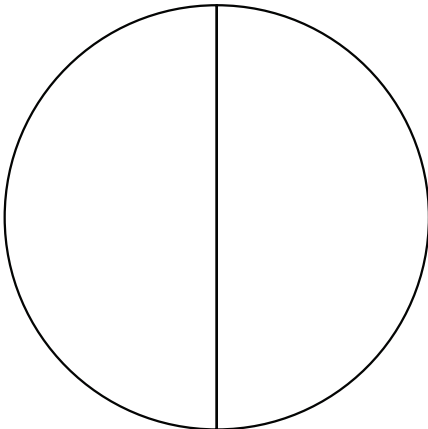


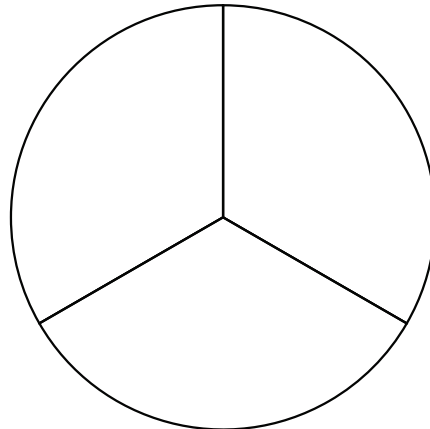
FRACTIONS CHART #1



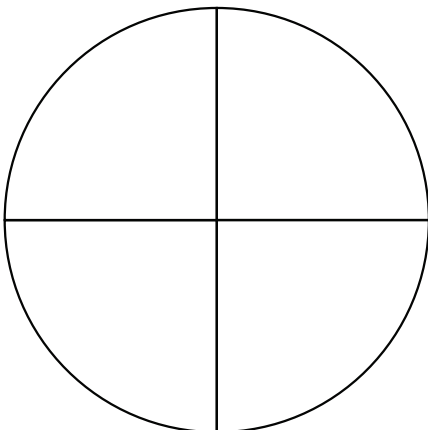
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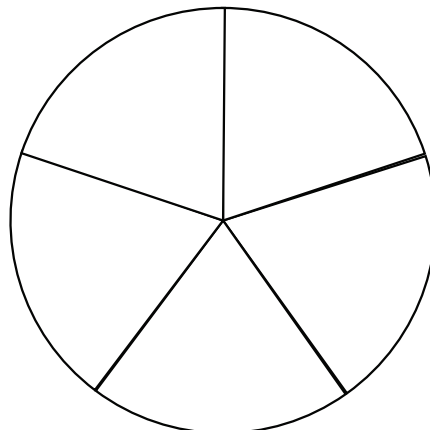
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3/3

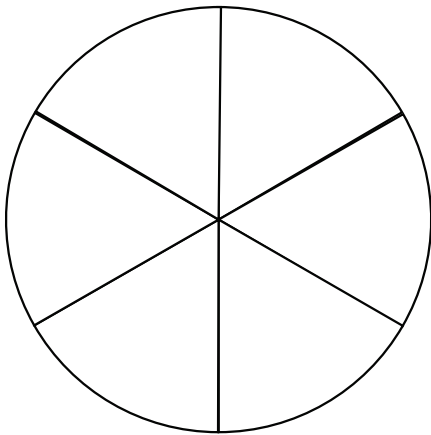


4/4

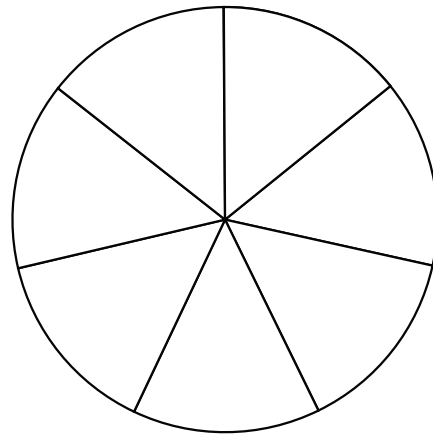


5/5

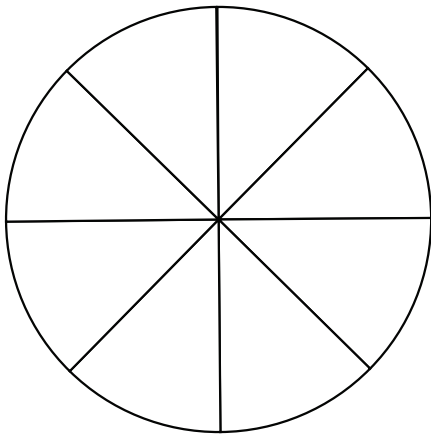
FRACTIONS CHART #2



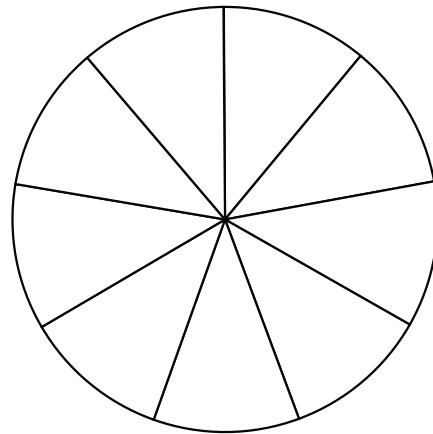
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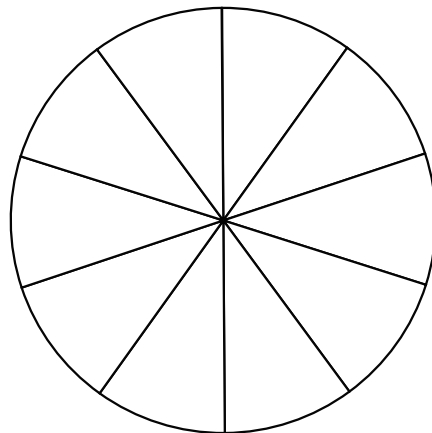
7/7



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9/9



10/10

EQUIVALENCE

Material:

- Fraction circle insets (Ten circles divided into fractional parts from one whole to tenths)

Presentation 1:

1. Place the fractions in sequence from left to right, from the whole to tenths.
2. Move the whole down.
3. Remove the whole circle from its frame and place it above the frame.
4. Move the halves down and to the right of the whole.
5. Take the halves and place them in the frame of the whole circle.
6. The halves occupy the same space as the whole circle.
7. Return the halves to their frame and move the frame down, placing the two halves above the frame.
8. Move the thirds down and to the right of the whole.
9. Take the thirds and place them in the frame of the whole circle.
10. The thirds occupy the same space as the whole circle.
11. Return the thirds to their frame and move the frame down and to the right of the halves, placing the three thirds above the frame.
12. Move the fourths down and to the right of the whole.
13. Take the fourths and place them in the frame of the whole circle.
14. The fourths occupy the same space as the whole circle.
15. Return the fourths to their frame and move the frame down and to the right of the thirds, placing the four fourths above the frame.
16. Move the fifths down and to the right of the whole.
17. Take the fifths and place them in the frame of the whole circle.

18. The fifths occupy the same space as the whole circle.
19. Return the fifths to their frame and move the frame down and to the right of the fourths, placing the five fifths above the frame.
20. Move the sixths down and to the right of the whole.
21. Take the sixths and place them in the frame of the whole circle.
22. The sixths occupy the same space as the whole circle.
23. Return the sixths to their frame and move the frame down and to the right of the fifths, placing the six sixths above the frame.
24. Move the sevenths down and to the right of the whole.
25. Take the sevenths and place them in the frame of the whole circle.
26. The sevenths occupy the same space as the whole circle.
27. Return the sevenths to their frame and move the frame down and to the right of the sixths, placing the seven sevenths above the frame.
28. Move the eighths down and to the right of the whole.
29. Take the eighths and place them in the frame of the whole circle.
30. The eighths occupy the same space as the whole circle.
31. Return the eighths to their frame and move the frame down and to the right of the sevenths, placing the eight eighths above the frame.
32. Move the ninths down and to the right of the whole.
33. Take the ninths and place them in the frame of the whole circle.
34. The ninths occupy the same space as the whole circle.
35. Return the ninths to their frame and move the frame down and to the right of the eighths, placing the nine ninths above the frame.
36. Move the tenths down and to the right of the whole.
37. Take the tenths and place them in the frame of the whole circle.

38. The tenths occupy the same space as the whole circle.
39. Return the tenths to their frame and move the frame down and to the right of the ninths, placing the ten tenths above the frame.
40. Say, "When one fraction can occupy the same amount of space as another fraction, we say they are equivalent."
41. On a strip of paper, write the word 'equivalent'.
42. There is a special sign for equivalent: =
43. Indicate the conventional notation for fractional equivalents of the whole, and place them below the fractional equivalents.

$$\frac{1}{1} = 1 \quad \frac{2}{2} = 1 \quad \frac{3}{3} = 1 \quad \frac{4}{4} = 1 \quad \frac{5}{5} = 1$$

$$\frac{6}{6} = 1 \quad \frac{7}{7} = 1 \quad \frac{8}{8} = 1 \quad \frac{9}{9} = 1 \quad \frac{10}{10} = 1$$

44. Note the relationship of the equivalents to each other.
45. With the children, make examples of the fractional equivalents of the whole.
46. Booklets and charts may be made by the children.
47. Equivalent Fractions Chart 1 - Wholes may be displayed.
48. Problems may be generated for the child to complete:

$$\frac{\quad}{1} = 1 \quad \frac{\quad}{2} = 1 \quad \frac{\quad}{3} = 1 \quad \frac{\quad}{4} = 1 \quad \frac{\quad}{5} = 1$$

$$\frac{\quad}{6} = 1 \quad \frac{\quad}{7} = 1 \quad \frac{\quad}{8} = 1 \quad \frac{\quad}{9} = 1 \quad \frac{\quad}{10} = 1$$

EQUIVALENT FRACTIONS CHART 1 - WHOLES

Equivalent Fractions Chart 1 - Wholes		$\frac{1}{1} = 1$	● = ●
		$\frac{2}{2} = 1$	● = ●
		$\frac{3}{3} = 1$	● = ●
		$\frac{4}{4} = 1$	● = ●
		$\frac{5}{5} = 1$	● = ●
		$\frac{6}{6} = 1$	● = ●
		$\frac{7}{7} = 1$	● = ●
		$\frac{8}{8} = 1$	● = ●
		$\frac{9}{9} = 1$	● = ●
		$\frac{10}{10} = 1$	● = ●

Presentation 2 (Halves):

1. Place the fractions in sequence from left to right, from the whole to tenths.
2. Move the half down.
3. Remove one of the halves from the frame and place it above the frame.
4. Say, "I want to see which fractions can occupy the space of one half."
5. Say, "Can the whole occupy the space of one half?" Indicate the whole. "No, one whole is too large."
6. Move the thirds down and to the right of the half.
7. Take the thirds and attempt to fill the space of one half with thirds. It is not possible.
8. Return the thirds to their frame and replace the frame to its original position.
9. Move the fourths down and to the right of the half.
10. Take the fourths and attempt to fill the space of one half with fourths. Two fourths fill the space of one half.
11. Move the fourths further down, placing the two fourths above the frame.
12. Move the fifths down and to the right of the half.
13. Take the fifths and attempt to fill the space of one half with fifths. It is not possible.
14. Return the fifths to their frame and replace the frame to its original position.
15. Move the sixths down and to the right of the half.
16. Take the sixths and attempt to fill the space of one half with sixths. Three sixths fill the space of one half.
17. Move the sixths further down to the right of the fourths, placing the three sixths above the frame.
18. Move the sevenths down and to the right of the half.

19. Take the sevenths and attempt to fill the space of one half with sevenths. It is not possible.
20. Return the sevenths to their frame and replace the frame to its original position.
21. Move the eighths down and to the right of the half.
22. Take the eighths and attempt to fill the space of one half with eighths. Four eighths fill the space of one half.
23. Move the eighths further down to the right of the sixths, placing the four eighths above the frame.
24. Move the ninths down and to the right of the half.
25. Take the ninths and attempt to fill the space of one half with ninths. It is not possible.
26. Return the ninths to their frame and replace the frame to its original position.
27. Move the tenths down and to the right of the half.
28. Take the tenths and attempt to fill the space of one half with tenths. Five tenths fill the space of one half.
29. Move the tenths further down to the right of the eighths, placing the five tenths above the frame.
30. Note that along the bottom of the work area are the fourths, sixths, eighths, and tenths which are equivalent to one half.
31. On a strip of paper, write the word 'equivalent'.
32. Indicate the conventional notation for fractional equivalents of the half, and place them by the appropriate fractional circle:
















$$\frac{2}{4} = \frac{1}{2} \quad \frac{3}{6} = \frac{1}{2} \quad \frac{4}{8} = \frac{1}{2} \quad \frac{5}{10} = \frac{1}{2}$$

33. Note the relationship of the equivalents to each other.
34. With the children, make examples of the fractional equivalents of the half.
35. Booklets and charts may be made by the children.
35. Equivalent Fractions Chart 2- Halves may be displayed.
36. Problems may be generated for the child to complete:

$$\frac{1}{2} = \frac{\quad}{4} \quad \frac{1}{2} = \frac{\quad}{6} \quad \frac{1}{2} = \frac{\quad}{8} \quad \frac{1}{2} = \frac{\quad}{10}$$

$$\frac{\quad}{2} = \frac{2}{4} \quad \frac{\quad}{2} = \frac{3}{6} \quad \frac{\quad}{2} = \frac{4}{8} \quad \frac{\quad}{2} = \frac{5}{10}$$

EQUIVALENT FRACTIONS CHART 2 - HALVES

Equivalent Fractions Chart 2 - Halves	$\frac{1}{2} = \frac{2}{4}$	 = 
	$\frac{1}{2} = \frac{3}{6}$	 = 
	$\frac{1}{2} = \frac{4}{8}$	 = 
	$\frac{1}{2} = \frac{5}{10}$	 = 
	$\frac{2}{4} = \frac{1}{2}$	 = 
	$\frac{3}{6} = \frac{1}{2}$	 = 
	$\frac{4}{8} = \frac{1}{2}$	 = 
	$\frac{5}{10} = \frac{1}{2}$	 = 